



Halogen-free, mud resistant instrumentation cable RFOU(c) 250V, S2/S6

Flame retardant halogen-free instrumentation cable. Mud resistant

RFOU(c) 250V

EPR/EPR/TCWB/EVA

NEK 606 CodeS2/S6



Operating temperature : 90°C
Operating Voltage : 250V

Application

Fixed installation for instrumentation, communication, Control and alarm systems in both EX- and safe areas. Meets the mud resistant requirements in NEK 606.

Standards applied

| | |
|-------------------------|-------------------|
| IEC 60092-376 (2003-05) | - Design |
| IEC 60228 class 2 | - Conductor |
| IEC 60092-351 | - Insulation |
| IEC 60092-359 | - Sheath |
| IEC 60332-1 | - Flame Retardant |
| IEC 60332-3-22 | - Flame Retardant |
| IEC 600754-1,2 | - Halogen Free |
| IEC 61034-1,2 | - Low Smoke |

Construction

| | Code Letter | |
|--------------------------------------|-------------|--|
| Conductor | | Tinned annealed stranded circular copper (STCC), IEC 60228 class 2 |
| Insulation | R | EP-rubber, IEC 60092-351 (EPR) |
| Pair / Triple / Quad twisting | | Color coded cores twisted together and wrapped with polyester tape. Pairs/Triples are laid up collectively and screened by copper backed polyester tape with tinned copper drain wire. Pairs/triples are identified by numbers printed directly on the insulated conductors. |
| Inner covering | F | Flame retardant and halogen-free thermoset compound |
| Tape over inner covering | | PET tape |
| Armour/screen | O | Tinned annealed copper wire braid |
| Tape over armour/screen | | PET tape |
| Outer sheath | U | Flame retardant, halogen-free and mud resistant thermoset compound, SHF2 (IEC 60092-359) |
| Marking text | | E.g. "meter" "år" DRAKA NORSK KABEL RFOU(c) 250V S2/S6 8 PAIR 0,75 mm ² IEC 60092-376 IEC 60332-3-22 ETL Classified No. 3067229 |
| Outer sheath colour | | Grey or Blue |



Core identification instrumentation cables

Pair Black - Light Blue
 Triple Black - Light Blue - Brown
 Quad Black - Light Blue - Brown - Grey

Range and dimensions

| Number of elements | No of cores in element | Cross section core, mm ² | Conductor Diameter, mm | Insulation Thickness, mm | Thickness Inner covering, mm | Diameter inner covering, mm | Diameter Braid Wire, mm | Thickness Outer Sheath, mm | Diameter outer sheath, mm | Weight of Cable Approx. (Kg/Km) | Copper content Approx. (kg/km) |
|--------------------|------------------------|-------------------------------------|------------------------|--------------------------|------------------------------|-----------------------------|-------------------------|----------------------------|---------------------------|---------------------------------|--------------------------------|
| 2 | 2 | 0.75 | 1.1 | 0.6 | 1.1 | 10 ± 0.8 | 0.2 | 1.2 | 13 ± 0.8 | 275 | 84 |
| 2 | 2 | 0.75 | 1.1 | 0.6 | 1.1 | 10 ± 0.8 | 0.2 | 1.2 | 13 ± 0.8 | 275 | 84 |
| 4 | 2 | 0.75 | 1.1 | 0.6 | 1.1 | 11.5 ± 0.8 | 0.3 | 1.3 | 15 ± 0.8 | 390 | 143 |
| 4 | 2 | 0.75 | 1.1 | 0.6 | 1.1 | 11.5 ± 0.8 | 0.3 | 1.3 | 15 ± 0.8 | 390 | 144 |
| 8 | 2 | 0.75 | 1.1 | 0.6 | 1.1 | 15.5 ± 0.8 | 0.3 | 1.4 | 19.5 ± 0.8 | 630 | 232 |
| 8 | 2 | 0.75 | 1.1 | 0.6 | 1.1 | 15.5 ± 0.8 | 0.3 | 1.4 | 19.5 ± 0.8 | 630 | 232 |
| 12 | 2 | 0.75 | 1.1 | 0.6 | 1.3 | 18 ± 0.8 | 0.3 | 1.5 | 22 ± 1 | 800 | 304 |
| 12 | 2 | 0.75 | 1.1 | 0.6 | 1.3 | 18 ± 0.8 | 0.3 | 1.5 | 22 ± 1 | 800 | 304 |
| 16 | 2 | 0.75 | 1.1 | 0.6 | 1.4 | 19.5 ± 0.8 | 0.3 | 1.6 | 23.5 ± 1 | 970 | 376 |
| 16 | 2 | 0.75 | 1.1 | 0.6 | 1.4 | 19.5 ± 0.8 | 0.3 | 1.6 | 23.5 ± 1 | 970 | 376 |
| 19 | 2 | 0.75 | 1.1 | 0.6 | 1.4 | 20.5 ± 1 | 0.3 | 1.7 | 25 ± 1 | 1110 | 443 |
| 24 | 2 | 0.75 | 1.1 | 0.6 | 1.6 | 24 ± 1 | 0.3 | 1.8 | 28.5 ± 1 | 1370 | 537 |
| 24 | 2 | 0.75 | 1.1 | 0.6 | 1.6 | 24 ± 1 | 0.3 | 1.8 | 28.5 ± 1 | 1370 | 537 |
| 2 | 3 | 0.75 | 1.1 | 0.6 | 1.1 | 11 ± 0.8 | 0.3 | 1.3 | 14.5 ± 0.8 | 360 | 130 |
| 2 | 3 | 0.75 | 1.1 | 0.6 | 1.1 | 11 ± 0.8 | 0.3 | 1.3 | 14.5 ± 0.8 | 360 | 130 |
| 4 | 3 | 0.75 | 1.1 | 0.6 | 1.1 | 12.5 ± 0.8 | 0.3 | 1.3 | 16.5 ± 0.8 | 480 | 188 |
| 4 | 3 | 0.75 | 1.1 | 0.6 | 1.1 | 12.5 ± 0.8 | 0.3 | 1.3 | 16.5 ± 0.8 | 480 | 188 |
| 8 | 3 | 0.75 | 1.1 | 0.6 | 1.1 | 17 ± 0.8 | 0.3 | 1.5 | 21 ± 1 | 780 | 305 |
| 8 | 3 | 0.75 | 1.1 | 0.6 | 1.1 | 17 ± 0.8 | 0.3 | 1.5 | 21 ± 1 | 780 | 305 |
| 12 | 3 | 0.75 | 1.1 | 0.6 | 1.3 | 20 ± 1 | 0.3 | 1.6 | 24 ± 1 | 1010 | 406 |
| 16 | 3 | 0.75 | 1.1 | 0.6 | 1.4 | 21.5 ± 1 | 0.3 | 1.7 | 26 ± 1 | 1250 | 515 |
| 24 | 3 | 0.75 | 1.1 | 0.6 | 1.8 | 27 ± 1 | 0.3 | 2 | 32 ± 1.5 | 1830 | 732 |
| 24 | 3 | 0.75 | 1.1 | 0.6 | 1.8 | 27 ± 1 | 0.3 | 2 | 32 ± 1.5 | 1830 | 732 |
| 2 | 2 | 1.5 | 1.6 | 0.7 | 1.1 | 12 ± 0.8 | 0.3 | 1.3 | 15.5 ± 0.8 | 410 | 162 |
| 2 | 2 | 1.5 | 1.6 | 0.7 | 1.1 | 12 ± 0.8 | 0.3 | 1.3 | 15.5 ± 0.8 | 410 | 162 |
| 4 | 2 | 1.5 | 1.6 | 0.7 | 1.1 | 14 ± 0.8 | 0.3 | 1.4 | 18 ± 0.8 | 560 | 234 |
| 4 | 2 | 1.5 | 1.6 | 0.7 | 1.1 | 14 ± 0.8 | 0.3 | 1.4 | 18 ± 0.8 | 560 | 234 |
| 8 | 2 | 1.5 | 1.6 | 0.7 | 1.1 | 19 ± 0.8 | 0.3 | 1.6 | 23 ± 1 | 910 | 378 |
| 8 | 2 | 1.5 | 1.6 | 0.7 | 1.1 | 19 ± 0.8 | 0.3 | 1.6 | 23 ± 1 | 910 | 378 |
| 10 | 2 | 1.5 | 1.6 | 0.7 | 1.2 | 21 ± 1 | 0.3 | 1.7 | 25.5 ± 1 | 1060 | 458 |
| 12 | 2 | 1.5 | 1.6 | 0.7 | 1.3 | 22 ± 1 | 0.3 | 1.7 | 26.5 ± 1 | 1190 | 513 |
| 16 | 2 | 1.5 | 1.6 | 0.7 | 1.4 | 24 ± 1 | 0.3 | 1.8 | 28.5 ± 1 | 1470 | 649 |
| 16 | 2 | 1.5 | 1.6 | 0.7 | 1.4 | 24 ± 1 | 0.3 | 1.8 | 28.5 ± 1 | 1470 | 649 |
| 24 | 2 | 1.5 | 1.6 | 0.7 | 1.8 | 30 ± 1.5 | 0.3 | 2.1 | 35.5 ± 1.5 | 2150 | 920 |
| 32 | 2 | 1.5 | 1.6 | 0.7 | 1.9 | 33 ± 1.5 | 0.4 | 2.2 | 39 ± 1.5 | 2750 | 1247 |
| 32 | 2 | 1.5 | 1.6 | 0.7 | 1.9 | 33 ± 1.5 | 0.4 | 2.2 | 39 ± 1.5 | 2750 | 1247 |
| 2 | 3 | 1.5 | 1.6 | 0.7 | 1.1 | 13 ± 0.8 | 0.3 | 1.4 | 17 ± 0.8 | 490 | 191 |



| Number of elements | No of cores in element | Cross section core, mm ² | Conductor Diameter, mm | Insulation Thickness, mm | Thickness Inner covering, mm | Diameter inner covering, mm | Diameter Braid Wire, mm | Thickness Outer Sheath, mm | Diameter outer sheath, mm | Weight of Cable Approx. (Kg/Km) | Copper content Approx. (kg/km) |
|--------------------|------------------------|-------------------------------------|------------------------|--------------------------|------------------------------|-----------------------------|-------------------------|----------------------------|---------------------------|---------------------------------|--------------------------------|
| 4 | 3 | 1.5 | 1.6 | 0.7 | 1.1 | 15.5 ± 0.8 | 0.3 | 1.4 | 19.5 ± 0.8 | 670 | 290 |
| 8 | 3 | 1.5 | 1.6 | 0.7 | 1.1 | 20.5 ± 1 | 0.3 | 1.7 | 25 ± 1 | 1150 | 515 |
| 12 | 3 | 1.5 | 1.6 | 0.7 | 1.3 | 24.5 ± 1 | 0.3 | 1.8 | 29 ± 1 | 1540 | 707 |
| 12 | 3 | 1.5 | 1.6 | 0.7 | 1.3 | 24.5 ± 1 | 0.3 | 1.8 | 29 ± 1 | 1540 | 707 |
| 16 | 3 | 1.5 | 1.6 | 0.7 | 1.4 | 26.5 ± 1 | 0.3 | 1.9 | 31.5 ± 1.5 | 1930 | 900 |
| 16 | 3 | 1.5 | 1.6 | 0.7 | 1.4 | 26.5 ± 1 | 0.3 | 1.9 | 31.5 ± 1.5 | 1930 | 900 |
| 24 | 3 | 1.5 | 1.6 | 0.7 | 1.8 | 33.5 ± 1.5 | 0.4 | 2.2 | 39.5 ± 1.5 | 2920 | 1364 |
| 24 | 3 | 1.5 | 1.6 | 0.7 | 1.8 | 33.5 ± 1.5 | 0.4 | 2.2 | 39.5 ± 1.5 | 2920 | 1364 |
| 4 | 2 | 2.5 | 2 | 0.7 | 1.1 | 16 ± 0.8 | 0.3 | 1.4 | 19.5 ± 0.8 | 680 | 308 |
| 4 | 2 | 2.5 | 2 | 0.7 | 1.1 | 16 ± 0.8 | 0.3 | 1.4 | 19.5 ± 0.8 | 680 | 308 |
| 5 | 2 | 2.5 | 2 | 0.7 | 1.1 | 17.5 ± 0.8 | 0.3 | 1.5 | 21.5 ± 1 | 810 | 370 |

Electrical values instrumentation cables

| Type | Capacitance, approx. (nF/km) | Inductance, approx. (mH/km) | Resistance at 20°C, max. (Ohm/km) | L/R ratio, (microH/Ohm) |
|--|------------------------------|-----------------------------|-----------------------------------|-------------------------|
| Unshielded pair 0,75 mm ² | 100 | 0,67 | 24,8 | 14,3 |
| Unshielded triple 0,75 mm ² | 100 | 0,67 | 24,8 | 14,3 |
| Unshielded pair 1,5 mm ² | 110 | 0,63 | 12,2 | 26,6 |
| Unshielded triple 1,5 mm ² | 110 | 0,63 | 12,2 | 26,6 |
| Unshielded pair 2,5 mm ² | 125 | 0,59 | 7,56 | 39,0 |
| Unshielded triple 2,5 mm ² | 125 | 0,59 | 7,56 | 39,0 |

Ordering information

| Part number | Description | Sheath Colour | Stock item | EAN No. DNK | EL No. |
|-------------|--|---------------|------------|---------------|---------|
| 892606 | RFOU(C) 2PAIR 0.75mm ² S2/S6 | GREY | Yes | 7021528926064 | 1044421 |
| 892607 | RFOU(C) 2PAIR 0.75mm ² S2/S6 | BLUE | Yes | 7021528926071 | 1044422 |
| 892618 | RFOU(C) 4PAIR 0.75mm ² S2/S6 | GREY | Yes | 7021528926187 | 1044423 |
| 892619 | RFOU(C) 4PAIR 0.75mm ² S2/S6 | BLUE | Yes | 7021528926194 | 1044424 |
| 892630 | RFOU(C) 8PAIR 0.75mm ² S2/S6 | GREY | Yes | 7021528926309 | 1044428 |
| 892631 | RFOU(C) 8PAIR 0.75mm ² S2/S6 | BLUE | Yes | 7021528926316 | 1044429 |
| 892636 | RFOU(C) 12PAIR 0.75mm ² S2/S6 | GREY | Yes | 7021528926361 | 1044430 |
| 892637 | RFOU(C) 12PAIR 0.75mm ² S2/S6 | BLUE | - | 7021528926378 | 1044431 |
| 892642 | RFOU(C) 16PAIR 0.75mm ² S2/S6 | GREY | Yes | 7021528926422 | 1044433 |
| 892643 | RFOU(C) 16PAIR 0.75mm ² S2/S6 | BLUE | Yes | 7021528926439 | 1044432 |
| 892645 | RFOU(C) 19PAIR 0.75mm ² S2/S6 | GREY | - | 7021528926453 | 1044434 |
| 892648 | RFOU(C) 24PAIR 0.75mm ² S2/S6 | GREY | Yes | 7021528926484 | 1044438 |
| 892649 | RFOU(C) 24PAIR 0.75mm ² S2/S6 | BLUE | Yes | 7021528926491 | 1044437 |
| 892666 | RFOU(C) 2TRIP 0.75mm ² S2/S6 | GREY | Yes | 7021528926668 | 1044490 |
| 892667 | RFOU(C) 2TRIP 0.75mm ² S2/S6 | BLUE | Yes | 7021528926675 | 1044491 |
| 892678 | RFOU(C) 4TRIP 0.75mm ² S2/S6 | GREY | - | 7021528926781 | 1044492 |
| 892679 | RFOU(C) 4TRIP 0.75mm ² S2/S6 | BLUE | - | 7021528926798 | 1044493 |
| 892690 | RFOU(C) 8TRIP 0.75mm ² S2/S6 | GREY | - | 7021528926903 | 1044496 |
| 892691 | RFOU(C) 8TRIP 0.75mm ² S2/S6 | BLUE | - | 7021528926910 | 1044497 |
| 892696 | RFOU(C) 12TRIP 0.75mm ² S2/S6 | GREY | - | 7021528926965 | 1044499 |
| 892702 | RFOU(C) 16TRIP 0.75mm ² S2/S6 | GREY | - | 7021528927023 | 1044501 |
| 892708 | RFOU(C) 24TRIP 0.75mm ² S2/S6 | GREY | - | 7021528927085 | 1044507 |



| Part number | Description | Sheath Colour | Stock item | EAN No. DNK | EL No. |
|-------------|--|---------------|------------|---------------|---------|
| 892709 | RFOU(C) 24TRIP 0.75mm ² S2/S6 | BLUE | - | 7021528927092 | 1044508 |
| 892806 | RFOU(C) 2PAIR 1.5mm ² S2/S6 | GREY | Yes | 7021528928068 | 1044461 |
| 892807 | RFOU(C) 2PAIR 1.5mm ² S2/S6 | BLUE | - | 7021528928075 | 1044462 |
| 892818 | RFOU(C) 4PAIR 1.5mm ² S2/S6 | GREY | Yes | 7021528928181 | 1044463 |
| 892819 | RFOU(C) 4PAIR 1.5mm ² S2/S6 | BLUE | - | 7021528928198 | 1044464 |
| 892830 | RFOU(C) 8PAIR 1.5mm ² S2/S6 | GREY | Yes | 7021528928303 | 1044468 |
| 892831 | RFOU(C) 8PAIR 1.5mm ² S2/S6 | BLUE | - | 7021528928310 | 1044469 |
| 892834 | RFOU(C) 10PAIR 1.5mm ² S2/S6 | GREY | - | 7021528928341 | - |
| 892836 | RFOU(C) 12PAIR 1.5mm ² S2/S6 | GREY | - | 7021528928365 | 1044470 |
| 892842 | RFOU(C) 16PAIR 1.5mm ² S2/S6 | GREY | Yes | 7021528928426 | 1044472 |
| 892843 | RFOU(C) 16PAIR 1.5mm ² S2/S6 | BLUE | - | 7021528928433 | 1044473 |
| 892848 | RFOU(C) 24PAIR 1.5mm ² S2/S6 | GREY | - | 7021528928488 | 1044478 |
| 892854 | RFOU(C) 32PAIR 1.5mm ² S2/S6 | GREY | - | 7021528928549 | - |
| 892855 | RFOU(C) 32PAIR 1.5mm ² S2/S6 | BLUE | - | 7021528928556 | - |
| 892866 | RFOU(C) 2TRIP 1.5mm ² S2/S6 | GREY | - | 7021528928662 | 1044561 |
| 892878 | RFOU(C) 4TRIP 1.5mm ² S2/S6 | GREY | - | 7021528928785 | 1044563 |
| 892891 | RFOU(C) 8TRIP 1.5mm ² S2/S6 | BLUE | - | 7021528928914 | - |
| 892896 | RFOU(C) 12TRIP 1.5mm ² S2/S6 | GREY | - | 7021528928969 | 1044569 |
| 892897 | RFOU(C) 12TRIP 1.5mm ² S2/S6 | BLUE | - | 7021528928976 | 1044570 |
| 892902 | RFOU(C) 16TRIP 1.5mm ² S2/S6 | GREY | - | 7021528929027 | 1044571 |
| 892903 | RFOU(C) 16TRIP 1.5mm ² S2/S6 | BLUE | - | 7021528929034 | 1044572 |
| 892908 | RFOU(C) 24TRIP 1.5mm ² S2/S6 | GREY | - | 7021528929089 | 1044577 |
| 892909 | RFOU(C) 24TRIP 1.5mm ² S2/S6 | BLUE | - | 7021528929096 | 1044578 |
| 893018 | RFOU(C) 4PAIR 2.5mm ² S2/S6 | GREY | - | 7021528930184 | - |
| 893019 | RFOU(C) 4PAIR 2.5mm ² S2/S6 | BLUE | - | 7021528930191 | - |
| 893021 | RFOU(C) 5PAIR 2.5mm ² S2/S6 | GREY | - | 7021528930214 | - |

Installation recommendations

| Minimum Bending Radius during Installation | Minimum Bending Radius Fixed Installed | Maximum Tensile Load During Installation | Minimum Installation Temperature |
|--|--|--|----------------------------------|
| 8 x D | 6 x D | 50 N /mm ² | -20°C |